

U. S. Application No. 10/717,264
Attorney Docket No. 2002B171/2
Reply to Office Action of July 14, 2006
Amendment dated October 10, 2006

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AMENDMENTS TO THE DETAILED DESCRIPTION

Please amend the specification as follows:

Please replace paragraph [0064] on page 13 of the application as filed with the following replacement paragraph:

[0064] In one or more of the processes described herein, the metallocene includes a dimethylanilinium tetrakis (perfluorophyl) boron activator. Alternatively, the supported metallocene can include a methylaluminoxane methylaluminoxane activator.

Please replace the first full paragraph beginning on page 18, line 1 of the application as filed with the following replacement paragraph:

R⁵ and R⁶ are identical or different, and are one of a hydrogen atom, a halogen atom, a C₁-C₁₀ alkyl group, which may be halogenated, a C₆-C₁₀ aryl group, which may be halogenated, a C₂-C₁₀ alkenyl group, a C₇-C₄₀ arylalkyl group, a C₇-C₄₀ alkylaryl group, a C₈-C₄₀ arylalkenyl group, a [[-NR₂¹⁵]] -NR₂¹⁵, [[-SR¹⁵]] -SR¹⁵, [[-OR¹⁵]] -OR¹⁵, [[-OSiR₃¹⁵]] -OSiR₃¹⁵ or [[-PR₂¹⁵]] -PR₂¹⁵ radical, wherein: R¹⁵ is one of a halogen atom, a C₁-C₁₀ alkyl group, or a C₆-C₁₀ aryl group;

Please replace the second and third full paragraphs beginning on page 19, line 3 of the application as filed with the following replacement paragraphs:

R¹⁰, R¹¹, R¹² and R¹³ are identical or different and have the meanings stated for R⁵ and R⁶; wherein at least one of R¹³ and R¹⁰ are identical or different, and are one of a hydrogen atom, a halogen atom, a C₁-C₁₀ alkyl group, which may be halogenated, a C₆-C₁₀ aryl group, which may be halogenated, a C₂-C₁₀ alkenyl group, a C₇-C₄₀ arylalkyl group, a C₇-C₄₀ alkylaryl group, a C₈-C₄₀ arylalkenyl group, a [[-NR₂¹⁵]] -NR₂¹⁵, [[-SR¹⁵]] -SR¹⁵, [[-OR¹⁵]] -OR¹⁵, [[-OSiR₃¹⁵]] -OSiR₃¹⁵ or [[-PR₂¹⁵]] -PR₂¹⁵ radical, wherein: [[R¹⁵]] R¹⁵ is one of a halogen atom, a C₁-C₁₀ alkyl group, or a C₆-C₁₀ aryl group; and

m and n are identical or different and are zero[[,]] or 1 or 2, m plus n is zero, 1 or 2.

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Please replace paragraph [0078] on page 21 of the application as filed with the following replacement paragraph:

[0078] In one or more of the polymer compositions described herein, the first diene monomer is 2-methyl-1,5-hexadiene or an α , internal non-conjugated diene monomer selected from the group consisting of 2-methyl-1,5-hexadiene and 7-methyl-1,6-octadiene.

Please replace paragraph [0084] on page 22 of the application as filed with the following replacement paragraph:

[0084] The α , internal diene monomers may be linear, cyclic, and/or multicyclic, including fused and non-fused cyclic dienes. Preferably, the α , internal non-conjugated diene monomers are linear. Also, preferably, the α , internal non-conjugated diene monomers include α , internal non-conjugated dienes in which the internal double bond is a vinylidene group or a tri-substituted unsaturation site. Examples of preferred α , internal non-conjugated dienes include 2-methyl-1,5-hexadiene (which has a vinylidene group); 7-methyl-1,6-octadiene (which has a tri-substituted unsaturation site); dicyclopentadiene; vinylnorbornene; ethylidene norbornene; 4-vinylcyclohexene; and 4-vinyl cyclopentene. Also available as a diene monomer in the present invention is 2-methyl-1,5 hexadiene (which has a vinylidene group).